

In the Claims:

Please amend the claims as follows: (a version with markings showing changes made is presented in Appendix A.) For the convenience of the Examiner all claims currently under examination are presented below:

62. A method for treating a subject with a tumor comprising modifying cells of the tumor *in vivo* to express a T cell costimulatory molecule, B7-2, to thereby treat the subject, wherein cells of the tumor are modified *in vivo* by delivering to the cells *in vivo* a nucleic acid molecule encoding B7-2 in a form suitable for expression of B7-2 by the cells.
63. The method of claim 62 wherein the nucleic acid molecule is delivered to the cells *in vivo* by injection of the nucleic acid molecule in an appropriate vehicle into the tumor.
71. The method of claim 62, wherein B7-2 comprises the amino acid sequence shown in SEQ ID NO:2.
72. The method of claim 62, wherein the nucleic acid molecule encoding B7-2 comprises the nucleic sequence shown in SEQ ID NO:1.
73. A method of modifying a tumor cell to express a B7-2 molecule comprising, transfecting a tumor cell with a nucleic acid molecule encoding a B7-2 molecule such that B7-2 is expressed by the tumor cell.
74. The method of claim 73 wherein tumor cell is modified by transfection with a nucleic acid molecule comprising the nucleotide sequence shown in SEQ ID NO:1.
76. The method of claim 73, wherein the tumor cell is modified *in vivo*.
77. The method of claim 73, wherein the tumor cell is further transfected with at least one nucleic acid molecule encoding a B7 protein.

78. The method of claim 73 wherein the tumor cells are further transfected with at least one nucleic acid molecule encoding at least one MHC class II α chain protein and at least one MHC class II β chain protein in a form suitable for expression of the MHC class II α chain protein(s) and the MHC class II β chain protein(s).
79. The method of claim 73 wherein the tumor cells are further transfected with at least one nucleic acid molecule encoding at least one MHC class I α chain protein in a form suitable for expression of the MHC class I protein(s).
80. The method of claim 73 wherein the tumor cells are further transfected with a nucleic acid molecule encoding a β -2 microglobulin protein in a form suitable for expression of the β -2 microglobulin protein.
81. The method of claim 73 wherein expression of an MHC class II associated protein, the invariant chain, is inhibited in the tumor cells.
82. The method of claim 81 wherein expression of the invariant chain is inhibited in the tumor cells by transfection of the tumor cell with a nucleic acid molecule which is antisense to a regulatory or a coding region of the invariant chain gene.
83. The method of claim 73 wherein the tumor is a sarcoma.
84. The method of claim 73 wherein the tumor is a lymphoma.
85. The method of claim 73 wherein the tumor is selected from a group consisting of a melanoma, a neuroblastoma, a leukemia and a carcinoma.
86. The method of claim 73, wherein the B7-2 molecule comprises the amino acid sequence shown in SEQ ID NO:2.
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88. (Amended) The method of claim 62 wherein cells of the tumor are modified *in vivo* by local administration at the site of the tumor, of a nucleic acid molecule encoding B7-2 in a form suitable for expression of B7-2, to the cells of the tumor.
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89. A method of increasing the immunogenicity of a tumor cell comprising, modifying the tumor cell to express a B7-2 T cell costimulatory molecule such that the immunogenicity of the tumor cell is increased, wherein local administration is via injection of the nucleic acid molecule into the tumor.
90. The method of claim 88 or 89 wherein the nucleic acid molecule encoding B7-2 is in a viral vector.
91. The method of claim 90 wherein the viral vector is selected from the group consisting of a retroviral vector, an adenoviral vector, and an adeno-associated viral vector.
92. The method of claim 88 or 89 wherein the nucleic acid molecule encoding B7-2 is a plasmid expression vector.
93. The method of claim 88, wherein B7-2 comprises the amino acid sequence shown in SEQ ID NO:2.
94. The method of claim 88, wherein the nucleic acid molecule encoding B7-2 comprises the nucleic sequence shown in SEQ ID NO:1.